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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/642,493	08/18/2003	Yoshihiro Katsumata	K-2073	1858

32628 7590 03/15/2005

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EXAMINER
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COONEY, JOHN M

ART UNIT	PAPER NUMBER
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1711

DATE MAILED: 03/15/2005

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Please find below and/or attached an Office communication concerning this application or proceeding.

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<b>Office Action Summary</b>	<b>Application No.</b> 10/642,493	<b>Applicant(s)</b> KATSUMATA, YOSHIHIRO	
	<b>Examiner</b> John m Cooney	<b>Art Unit</b> 1711	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 20 December 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-6,8,9 and 11-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6,8,9 and 11-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☒ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☒ Certified copies of the priority documents have been received in Application No. 10/227,269.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

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Applicant's arguments filed 12-20-04 have been fully considered but they are not persuasive.

All rejections are withdrawn in light of applicants' amendments, reconsideration, and the following new objections and rejections.

### ***Claim Objections***

The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: The lower end of applicants' range of urea content values (i.e. "and more than 0.2") and the limitation of claim 14 (i.e. the employment of a crosslinking agent) need to be inserted into the specification.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-6, 8, 9, and 11-14 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for hydroxyl compounds comprising 100

Art Unit: 1711

parts by weight of polyether polyol having a molecular weight from 3000 to 6000 and 0.5-20 parts by weight of a low-molecular weight hydroxyl compound selected from the group consisting of ethylene glycol, propylene glycol, diethylene glycol, butanediol, glycerin, trimethylolpropane, triethylolpropane, trimethylolethane, triethylolethane, pentaerythritol and 1, 2, 6-hexantriol, does not reasonably provide enablement for any combinations of hydroxyl compounds having different molecular weights in the amounts specified. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make the invention commensurate in scope with these claims. Applicants' supporting disclosure identifies particular groups of hydroxyl compounds for the purposes of their invention, but does not contemplate or enable practice of their invention for the scope of the range molecular weights for the hydroxyl compound materials as they are currently claimed.

Claim 12 is rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for a low-molecular weight hydroxyl compound having a molecular weight of 134, does not reasonably provide enablement for a low-molecular weight hydroxyl compound having an average molecular weight of about 134. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make the invention commensurate in scope with these claims. Applicants' supporting disclosure is not enabling for compounds having non-whole number molecular weights. A whole number value must be

Art Unit: 1711

associated with the molecular weight of a compound. Although it is acknowledged that some polymers which may comprise a mixture of compounds, thus being averaged and having non-whole number molecular weights, such is not seen to be the case in the limitation of instant concern. {see also the rejection under 35 USC 112 2<sup>nd</sup> Paragraph below}.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-6, 8-9, and 11-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term "low-molecular weight" in claims 1-6, 8-9, and 11-16 is a relative term which renders the claim indefinite. The term "low-molecular weight" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. It can not be determine what degrees of molecular weight values are being intended by the terminology "low-molecular weight", and, accordingly, the claims are confusing as to intent.

Claim 12 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

It is not seen how a compound of the molecular weight claimed can have an average molecular weight and/or molecular weights not of a whole number. Accordingly, the claims are confusing as to intent.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-6, 8, 9, and 11-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Scherzer et al. (6,031,013), alone, or in view of Fujita et al. (6,303,669).

Scherzer et al. discloses preparations of polyurethane foams from high molecular weight polyols, isocyanates, foaming agents inclusive of water in amounts prescribed by applicants' claims, chain extenders and/or crosslinkers reading on applicants' claimed low molecular weight polyol and the crosslinkers of applicants' claims, silicone-polyether stabilizers, and catalysts, wherein the reactants are combined in amounts and manners

which meet the urethane/urea criteria of applicants' claims (see column 1 line 47- column 10 line 13, as well as, the entire document).

Scherzer et al. differs from applicants' claims in that urea modification to the polymer through inclusion of urea groups is not particularly required. However, the reference is clear in its recitation that urea group content may be incorporated into the polymers through inclusion of urea groups in the isocyanate (see column 2 lines 53-56). Accordingly, it would have been obvious for one having ordinary skill in the art to have employed isocyanates containing urea groups, as disclosed by Scherzer et al. in the making of the preparations of Scherzer et al. for the purpose of imparting greater crystallinity to the structures realized in order to arrive at the products of applicants' claims with the expectation of success in the absence of a showing of new or unexpected results.

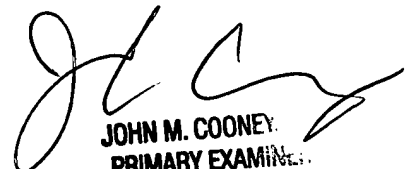
Scherzer et al. further differs from claims 1-6,8,9,11-14,and 16 in that the flexible polyurethanes prepared are not particularly employed as edge members of diaphragms of speakers. However, Fujita et al. discloses that it is well known to employ flexible polyurethane foams as edge members of diaphragms of speakers for the purpose of utilizing the beneficial properties of the respective foam while serving the function of operating as a speaker edge material. Accordingly, it would have been obvious for one having ordinary skill in the art to have employed the flexible foam materials of Scherzer et al. in the function of the speaker edge material in the preparations of Fujita et al. for the purpose of imparting their flexibility and lightfastness effect in order to arrive at the

products of applicants' claims with the expectation of success in the absence of a showing of new or unexpected results.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Cooney whose telephone number is 571-272-1070. The examiner can normally be reached on M-F from 9 to 6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck, can be reached on 571-272-1078. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
JOHN M. COONEY  
PRIMARY EXAMINER  
Group 1700